

Application No.: 10/055,872
Amendment dated: March 29, 2004
Reply to Office Action of April 10, 2003

b.) Remarks

Claims 1-27 are pending in this application.

Claims 17-21 and 25-27 were rejected for being indefinite. This rejection is respectfully traversed for the following reasons.

Applicants respectfully urge that the claims are definite. The bases for the rejection were: 1) the recitations concerning the output mirror and spatial mode filter, 2) the questioned significance of the mode being larger than 5 micrometers, and 3) the questioned significance of "overmoded".

The output mirror of claim 17 corresponds to the Bragg filter 152 of Fig. 7. The fiber 126 functions as the spatial mode filter between the mirror and the chip facet. Thus, the claim language corresponds to the specification.

The significance of the mode size being greater than 5 micrometers is addressed in the specification at pages 1 and 2. It allows for butt coupling to single mode fiber, which decreases packaging costs.

Finally, the overmoded characteristic refers to the fact that the chip itself may not be inherently single mode, but single mode operation can be achieved by including the spatial mode filter of the fiber.

Thus, Applicants believe that the claims are definite.

Claim 1-27 were rejected as either being obvious relative to the Alphonse patents. These rejections are also respectfully traversed.

Claims 1 and 17 require that the lowest order spatial mode be greater than 5 micrometers in diameter. This is not shown by the references.

As mentioned before, the large mode enables efficient coupling to fiber, avoiding the need for mode conversion optics such as lenses 440, 450 in Fig. 6 of the '207 Alphonse Patent.

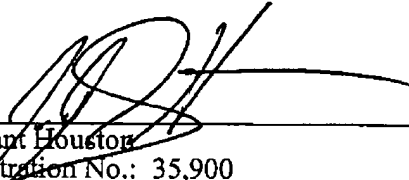
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Further, new claim 22 describes that the lowest order spatial mode is greater than 5 micrometers in both the lateral and transverse directions, which is further not shown.

Applicants thus request withdrawal of these art rejections.

Applicants believe that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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Date: March 29, 2004